

Leavenworth, Kans.: floating ice in river, 3d, 6th.

Yellowstone River.—Billings, Mont.: ice broke up on 19th; considerable damage resulted from the ice gorges.

Little and Big Horn rivers.—Fort Custer, Mont.: the ice in Little Horn River broke on the 16th, and in the Big Horn on the 19th.

Platte and Laramie rivers.—Fort Laramie, Wyo.: both rivers were free of ice on the 13th.

FLOODS.

Palestine, Tex.: an unusually heavy rain fell on the 3d, causing considerable damage to railroads in this part of state.

Onancock, Accomac Co., Va.: the high tide during the severe storm on the 11th inundated a very large area along Chesapeake Bay, drowning cattle and causing other damage.

Wilmington, N. C.: slight freshet occurred in the Cape Fear River on the 15th.

Fremont, Dodge Co., Nebr., 19th: the freshet in the Platte River has caused great damage in this county. A bridge at this place, and a part of one at North Bend, were washed away, as also several bridges over the smaller streams.

Fort Buford, Dak.: the river rose five feet during the 20th, and overflowed in some places; on the 23d the river fell slightly, but afterwards rose again, flooding portions of the adjacent bottom lands; the Saint Paul, Minneapolis, and Manitoba road-bed was washed to some extent. Reports from the Yellowstone Valley on the 24th stated that ice-dams had formed in the river, causing it to overflow in some places.

Poplar River, Mont.: on the 20th the ice in the Missouri River at Rocky Point and Galpin broke, but at Poplar River it remained intact, causing the water up the river to overflow adjacent bottom lands; the railroad track west of Poplar River was submerged, and houses at the base of the hill were rendered uninhabitable. Reports on the 21st stated that bridges and the railroad bed were washed out to the west of Poplar River. On this date the water reached the highest stage that has occurred since 1881.

Albany, N. Y.: on account of the warm weather and heavy rain which prevailed on the 21st, the snow melted rapidly, and caused rivers and small streams to rise suddenly. At 6 p. m. the docks in this city were submerged, and at 9 a. m. on the following day the river reached its highest stage; after that time it fell slowly. The high water in the Mohawk River and Schoharie Creek delayed all trains on the West Shore and New York Central railroads on this date. The docks were again submerged on the 29th; much damage was done by the high water.

New Haven, Conn., 22d: freshets are reported throughout the state. At Willimantic, Windham Co., a dam broke, causing the mills at that place to shut down. At Hartford the river was sixteen feet above low-water mark, with the ice still firm on the 23d. In other sections of the state the waters began to subside on the latter date.

Norwich, New London Co., Conn., 22d: the recent thaw, together with heavy rains, caused the streams in the surrounding country to overflow, washing away bridges, etc. An area of ten acres in the centre of Norwich was inundated, the water reaching a depth of four feet.

Palmer, Hampden Co., Mass.: the heavy rains which prevailed throughout western Massachusetts on the 21st inundated meadows for miles, and caused much damage to roadways. The lowlands along the Naugatuck and Housatonic rivers in the vicinity of Ansonia were also submerged.

Nashville, Tenn.: the Cumberland River rose very rapidly from the 25th to 30th, and by 11 a. m. of the latter date had

reached a height of 39.2 feet. About fifty families living on lowlands near the river were compelled to move.

Rockwood, Roane Co., Tenn.: the heavy rainfall during the night of the 26–27th flooded a part of this town; the foundations of some buildings were weakened.

Cairo, Ill.: the Mississippi and Ohio rivers rose rapidly from the 27th to the end of the month, reaching their highest stages on the 31st. On the 29th the lowlands both above and below Cairo were inundated. Large quantities of floating debris passed down both rivers on the above dates, interrupting navigation.

Augusta, Ga.: the Savannah River began to rise rapidly on the 27th, and continued to rise until 1.30 p. m. on the 30th, when it reached its highest point, 32.7 feet; it remained at that stage until 9 p. m., when it began to fall; no damage of any consequence resulted.

Rockland, Knox Co., Me., 27th: recent freshets have caused great damage to bridges and mill property in the upper part of this county.

Findlay, Hancock Co., Ohio: Blanchard's Fork of the Auglaize River, which runs through this town, overflowed on the 27th, causing much damage. People living in the lowlands were compelled to move.

Decatur, Morgan Co., Ala.: the Tennessee River below this place overflowed on the 28th. Numerous washouts occurred on the Louisville and Nashville Railroad, between Decatur and Birmingham.

Selma, Dallas Co., Ala.: the Alabama River overflowed at this point on the 28th, causing the people living along the river to move to adjacent highlands.

Anniston, Calhoun Co., Ala., 28th: the heavy rains of the past four days have caused the streams in this section of the state to overflow, washing away many bridges. Travel over the East Tennessee, Virginia & Georgia, the Georgia Pacific, and the Anniston & Atlantic railways was entirely suspended.

Des Moines, Iowa: reports from Sioux City on the 28th stated that on account of the high water at the mouth of the Big Sioux River many persons were compelled to leave their homes.

Lima, Allen Co., Ohio: the Ottawa River, which flows through the centre of this town, overflowed on the 28th, carrying away fences, oil-derricks, pump-houses, etc., along its banks, and damaging about twenty dwellings in the lowlands. The damage is estimated at several thousand dollars. Lost Creek, in the eastern part of Allen county, reached the highest stage known in many years.

Statesville, Iredell Co., N. C.: destructive freshets occurred at this place on the 29th.

Tiffin, Seneca Co., Ohio, 29th: the continuous rains of the past twenty-four hours have caused the Sandusky River and its tributaries to overflow, inundating thousands of acres, including a part of Tiffin. Winter wheat has been greatly injured by the freshet.

The observer at Milledgeville, Baldwin Co., Ga., reports as follows: The month has been very wet and unfavorable to farming interests. The rolling lands of middle Georgia have never before been more damaged in so short a time as was done by the heavy rainfall during the last week of this month. The first three months of the year have afforded but little weather for farm work, which is much delayed.

HIGH TIDES.

Hatteras, N. C., 11th; Pensacola, Fla., 19th; Eastport, Me., 29th.

LOW TIDES.

Baltimore, Md., 12th to 15th; Sebastian, Fla., 26th, 27th.

ATMOSPHERIC ELECTRICITY.

AUROSAS.

The principal auroral displays of the month were those of

the 7th and 15th, both of which were observed quite generally from Montana and Dakota eastward to New England; Egg

Harbor City, N. J., being the southernmost point reporting on the 7th, and stations in northern Ohio being the most southerly reporting the display of the 15th.

Auroras were observed during the month, as follows: 2d, Northfield, Vt. 7th, Kimball, Dak.; Cresco, Iowa; Cambridge (aurora suspected) and Provincetown, Mass.; Grand Haven, Marquette, and Traverse City, Mich.; Moorhead and Saint Vincent, Minn.; Egg Harbor City, N. J.; Delavan and Madison, Wis. 8th, Provincetown, Mass.; Fort Assinaboine, Mont. 9th, Bismarck, Dak. 10th, Egg Harbor City, N. J. 12th, Fort Assinaboine, Mont. 15th, Bismarck, Fort Buford, and Webster, Dak.; Cresco, Iowa; Eastport and Gardiner, Me.; Cambridge and Newburyport (suspected) and Provincetown, Mass.; Moorhead and Saint Vincent, Minn.; Poplar River, Mont.; Lordstown and Wauseon, Ohio; Delavan, Deuster, Embarras, and Madison, Wis. 16th, Bismarck, Fort Buford, and Webster, Dak.; Fort Assinaboine, Mont. 17th, Gardiner and Orono, Me.; Alpena, Mich.; Berlin Mills and Nashua, N. H.; Rose, N. Y. 18th, Huron, Dak.; Gardiner and Orono, Me.; Westborough, Mass. 21st, Webster, Dak.; Saint Vincent, Minn. 23d, Cornish, Me. 24th, Manson, Iowa. 30th, Fort Buford and Fort Totten, Dak.; Saint Vincent, Minn.; Poplar River, Mont.; Quakertown, Pa.

The following are descriptions of some of the most brilliant displays of the month:

Marquette, Mich.: an auroral arch, of pale white light, was observed at 8.20 p. m., 7th, covering about 90° of the horizon and reaching an altitude of 15°. At 10.40 p. m. several streamers were observed shooting upward to an altitude of 65°. Curtains of light, having a silvery appearance, moved laterally from east to west. The display, which was very brilliant, terminated at midnight.

Saint Vincent, Minn.: an aurora began at 9.20 p. m., 15th, and ended during the night; it first consisted of an arch which, at 10 p. m., divided into two arches, one about 4° above the other, the upper one having an altitude of 12° and covering 105° of the horizon. Maximum brilliancy occurred at 10.30 p. m.

Moorhead, Minn.: a very brilliant aurora, consisting of two arches, was observed at 10 p. m., 15th; the distance between the two arches was about 8° or 10°, the upper one extending to within 20° of the zenith; the display ended at 5 a. m. on the 16th.

Bismarck, Dak.: an auroral arch, of a bright yellow color, was first observed at 10 p. m. on the 15th; the display increased in brilliancy and extent until its maximum was attained at 11 p. m.; the arch rested upon a dark segment 10° high, covered 80° of the horizon, and reached an altitude of 40°; the display faded away gradually and had entirely disappeared by midnight. At 12.45 a. m. of the 17th an auroral light, partially obscured by cirro-stratus clouds, and consisting of a well-defined arch of pale yellow color, was observed; the arch rested on a dark segment 10° high, and covered 120° of the horizon, from which beams of light extended upward to an altitude of 40°; the aurora attained its maximum intensity at 3 a. m. and ended at 4.30 a. m.

THUNDER-STORMS.

Thunder-storms were reported as follows: 1st, Montrose, Colo.; Parkston and Yankton, Dak.; Fort Reno and Fort Supply, Ind. T.; Auburn, Ames, Bancroft, Cromwell, Clarinda, Des Moines, Glenwood, Panora, Smithland, and Wesley, Iowa; Emporia, Independence, Lebo, Manhattan, Topeka, Salina, Wakefield, Wellington, and Wilson, Kans.; Conception, Mo.; Brownville, Crete, De Soto, and Omaha, Nebr.; Corsicana, Decatur, New Ulm, and Palestine, Tex. 2d, Eureka Springs, Ark.; Oroville, Cal.; Fort Sill, Ind. T.; Lamar, Mo.; Abilene, Corsicana, Cedar Hill, and Cleburne, Tex. 3d, Montrose, Colo.; Fort Sill, Ind. T.; Philipsburg, Pa.; Brownsville, Cleburne, Corsicana, Decatur, and Fort Elliott, Tex. 4th, Angel Island, Alcatraz Island, Salinas, and San Francisco, Cal.; Montrose, Colo.; Liberty Hill and Shreveport, La.; Vicks-

burg, Miss.; Decatur, Galveston, and Palestine, Tex. 5th, Montrose, Colo.; Pensacola, Fla.; Shreveport, La. 6th, Montrose, Colo.; Sebastian and Jupiter, Fla. 8th, Fort Apache and Fort McDowell, Ariz.; Willows, Cal.; Conception, Mo. 9th, Fort Smith, Hot Springs, Lead Hill, and Little Rock, Ark.; Montrose, Colo.; Fort Sill, Ind. T.; Clarinda and Des Moines, Iowa; Globe, Independence, Lebo, Manhattan, Topeka, and Wellington, Kans.; Shreveport, La.; Lamar and Springfield, Mo.; Corsicana, Decatur, and Palestine, Tex. 10th, Livingston and Mobile, Ala.; Tallahassee and Pensacola, Fla.; Cairo and Windsor, Ill.; New Providence, Ind.; Grand Coteau, Liberty Hill, and Shreveport, La.; Biloxi, Miss.; Springfield, Mo.; Milan and Memphis, Tenn. 11th, Auburn, Ala. 13th, Brownsville, Corpus Christi, Rio Grande City, and San Antonio, Tex. 14th, Brownsville, Tex. 16th, Fort Apache and Fort Bowie, Ariz.; Charleston, Ill.; Cedar Springs, S. C. 17th, Fort Apache, Fort Thomas, Willcox, and Tucson, Ariz.; Charlotte, Lenoir, and Statesville, N. C.; Columbia and Stateburg, S. C.; Fort Davis, Tex.; 18th, Auburn, Bancroft, Clarinda, Clear Lake, Cresco, Cromwell, Glenwood, Manson, Osage, Sac City, Smithland, and Wesley, Iowa; Tribune, Kans.; Portland, Me.; Traverse City, Mich.; De Soto, Genoa, Marquette, and Omaha, Nebr.; Lava, N. Mex.; Brownsville, Corsicana, Corpus Christi, New Ulm, Palestine, and San Antonio, Tex.; Manitowoc, Wis. 19th, Fort Apache and Fort McDowell, Ariz.; Eureka Springs, Fort Smith, Hot Springs, and Little Rock, Ark.; Montrose, Colo.; Ames and Glenwood, Iowa; Independence, Kans.; Grand Coteau, La.; Alpena, Mich.; Lamar and Springfield, Mo.; Cedar Springs, S. C.; Milan, Tenn.; Brownsville, Corpus Christi, and Galveston, Tex. 20th, Auburn, Livingston, Mobile, Montgomery, and New Market, Ala.; Pensacola, Fla.; Forsyth and Quitman, Ga.; Cairo, Ill.; Butlerville, Jeffersonville, Limona, Mauzy, Sunman, and Veray, Ind.; Lexington and Louisville, Ky.; Grand Coteau, La.; Biloxi, Miss.; Egg Harbor City, N. J.; Cleveland, Columbus, North Lewisburg, Portsmouth, Westerville, and Yellow Springs, Ohio; Aiken and Stateburg, S. C.; Chattanooga, Knoxville, Memphis, Milan, and Nashville, Tenn.; Comfort and Corsicana, Tex.; Marion, Va. 21st, Mount Vernon, Ala.; Washington City; Alva, Limona, and Tallahassee, Fla.; Atlanta, Augusta, Forsyth, and Milledgeville, Ga.; Baltimore, Emmitsburg and Woodstock, Md.; Beverly, Clayton, and Moorestown, N. J.; Lenoir, N. C.; College Hill; Garrettsville, Lordstown, and Tiffin, Ohio; Catawissa, Philadelphia, Pittsburg, Quakertown, and Westtown, Pa.; Columbia and Stateburg, S. C.; Knoxville, Tenn.; Bird's Nest, Cape Henry, Norfolk, and Variety Mills, Va.; Parkersburg, W. Va. 22d, Ardenia, N. Y. 23d, Fort Bidwell, Cal. 24th, Fort Smith and Hot Springs, Ark.; Fort Sill and Fort Reno, Ind. T.; Globe, Manhattan, Salina, Wakefield, Wellington, and Wilson, Kans.; Grand Coteau, Liberty Hill, and Shreveport, La. 25th, New Market, Ala.; Fort Smith, Hot Springs, Lead Hill, and Little Rock, Ark.; Montrose, Colo.; Amana, Cedar Rapids, Fort Madison, Keokuk, Muscatine, and Vinton, Iowa; Liberty Hill, New Orleans, and Shreveport, La.; University and Vicksburg, Miss.; Frankford, Lamar, and Springfield, Mo.; Gallinas Spring, N. Mex.; Ashwood, Milan, and Nashville, Tenn. 26th, Montgomery, Mount Vernon, and New Market, Ala.; East Pasadena, Cal.; Las Animas and Montrose, Colo.; Pensacola, Fla.; Quitman, Ga.; Pekin, Ill.; Cedar Rapids and Oskaloosa, Iowa; Grand Coteau, New Orleans, and Shreveport, La.; Biloxi, Miss.; New Athens and Portsmouth, Ohio; Chattanooga and Nashville, Tenn.; Galveston, Tex. 27th, Montgomery, Ala.; Jeffersonville, Ind.; Grand Coteau and Shreveport, La.; University, Miss.; Auburn, Rose, and Syracuse, N. Y.; Nashville, Tenn.; Galveston, Tex. 28th, Atlanta, Forsyth, and Milledgeville, Ga.; Jeffersonville and Sunman, Ind.; Charlotte and Statesville, N. C.; Cedar Springs, Columbia, Stateburg, S. C.; Ashwood and Nashville, Tenn.; Dale Enterprise, Va.; Middlebrook, W. Va. 29th, Forsyth, Ga. 31st, Bandon, Oregon.